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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,377	09/30/2003	Joseph Hungate	030501	4033

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EXAMINER	
TRAN, DALENA	

ART UNIT	PAPER NUMBER
3661	

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/678,377	HUNGATE ET AL.
	Examiner	Art Unit
	Dalena Tran	3661

-The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/19/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 1-22 are pending.

The prior art submitted on 12/19/03 has been considered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-7,10-14,15-18, and 21-22, are rejected under 35 U.S.C.103(a) as being unpatentable over Aver, Jr. et al. in view of Heggestad et al. (5,533,695).

As per claim 1, Aver, Jr. et al. disclose an automated voice transmission method to authorize the movement of trains in non-signaled territory, automated voice transmission method comprising: generating a non-verbal movement authority for a designated train in non-signaled territory; and converting non-verbal movement authority to a verbal movement authority (see column 4, line 30 to column 5, line 29; and column 6, lines 41-67); and communicating verbal movement authority to designated train (see the abstract). Aver, Jr. et al. do not disclose receiving verbal movement authority on-board designated train, and communicating acceptance or rejection of verbal movement authority. However, Heggestad et al. disclose receiving verbal movement authority on-board designated train, and communicating acceptance or rejection of verbal movement authority from on-board designated train (see the abstract; column 3, line 51 to

column 4, line 25; and column 5, line 27 to column 6, line 9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Aver, Jr. et al. by combining receiving verbal movement authority on-board designated train, and communicating acceptance or rejection of verbal movement authority from on-board designated train to make sure the driver of the train receive accurate signal of movement of the train to ensure safety and avoiding any confusion in authorize the movement of trains.

Also, as per claims 3-4, Heggestad et al. disclose communicating to designated train confirmation of acceptance or rejection, and requiring a secure code to authorize receiving verbal movement authority (see column 5, line 27 to column 6, line 9; column 8, lines 24-52; and column 9, line 16 to column 10, line 25).

As per claim 5, Aver, Jr. et al. disclose requiring a first secure code to authorizing receiving verbal movement authority (see column 3, line 43 to column 4, line 29; and column 7, line 29 to column 8, line 27). Aver, Jr. et al. do not disclose requiring a second secure code to authorize acceptance or rejection of verbal movement authority. However, Heggestad et al. disclose requiring a secure code to authorize acceptance or rejection of verbal movement authority (see column 7, lines 6-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Aver, Jr. et al. by combining requiring a secure code to authorize acceptance or rejection of verbal movement authority to ensure positive train control based on signal status and operation profile of the route.

As per claim 6, Aver, Jr. et al. disclose identifying a location of designated train (see column 4, line 35 to column 5, line 29), and selecting a communication device nearest location

of designated train, and communicating verbal movement authority to designated train via communication device (see column 3, lines 11-42).

As per claim 7, Aver, Jr. et al. disclose communicating position information from designated train to dispatch office at which movement authority is generated (see the abstract).

As per claim 10, Aver, Jr. et al. disclose communicating non-verbal movement authority to designated train in text format for comparison with verbal movement authority (see column 5, lines 30-60).

As per claim 11, Aver, Jr. et al. disclose generating non-verbal movement authority using a computer aided system that assures only non-conflicting movement authorities are generated (see column 5, line 61 to column 6, line 22).

Claims 12-13, are system claims corresponding to method claims 1-2 above. Therefore, they are rejected for the same rationales set forth as above.

Claims 14 and 17, are system claims corresponding to method claims 3 and 4 above. Therefore, they are rejected for the same rationales set forth as above.

Claims 21-22, are system claims corresponding to method claims 10-11 above. Therefore, they are rejected for the same rationales set forth as above.

As per claim 15, Aver, Jr. et al. disclose a movement authority crew acknowledgment verifier which compares first secure code to second secure code and authorizes communication of verbal movement authority to designated train if first and second secure codes correspond (see column 2, lines 35-63).

As per claim 16, Aver, Jr. et al. do not disclose secure code to authorize acceptance or rejection of verbal movement authority. However, Heggestad et al. disclose movement authority

crew acknowledgment verifier comparing first secure code to second secure code to verify acceptance or rejection of verbal movement authority communicated from designated train in response to reception of verbal movement authority (see column 8, lines 23-52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Aver, Jr. et al. by combining requiring a secure code to authorize acceptance or rejection of verbal movement authority to ensure positive train control based on signal status and operation profile of the route.

As per claim 18, Aver, Jr. et al. disclose a plurality of third voice communication devices selectively communicable between first and second voice communication devices (see column 9, lines 15-35), and a train position decoder which selects one of plurality of third voice communication devices nearest designated train to communicate verbal movement authority from first communication devices to second communication devices (see column 9, line 36 to column 10, line 32).

4. Claims 8-9, and 19-20, are rejected under 35 U.S.C.103(a) as being unpatentable over Aver, Jr. et al., and Heggestad et al. (5,533,695) as applied to claims 7, and 12 above, and further in view of Westerlage et al. (6,295,449).

As per claim 8, Aver, Jr. et al., and Heggestad et al. do not disclose receive GPS position. However, Westerlage et al. disclose receiving GPS position information on-board designated train (see column 17, line 46 to column 18, line 8); and communicating GPS position information from designated train to dispatch office (see column 16, lines 3-19; and column 16, line 46 to column 17, line 23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Aver, Jr. et al., and Heggestad et al. by

combining receiving GPS position information on-board designated train, and communicating GPS position information from designated train to dispatch office for accurately monitoring train position, in order to send a correct message to a designated train for authorizing train moment.

As per claim 9, Aver, Jr. et al. disclose communicating locomotive identification information from designated train to dispatch office (see column 5, lines 30-60).

As per claim 19, Jr. et al., and Heggestad et al. do not disclose communicating GPS position. However, Westerlage et al. disclose communicating at least one of GPS position information and train identification information to first communication device, first communication device communicating at least one of GPS position information and train identification information to train position decoder to determine one of plurality of third communication device nearest designated train (see column 10, line 27 to column 11, line 30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Aver, Jr. et al., and Heggestad et al. by combining communicating GPS position to establish communication network over the dispatch office and trains movement.

Also, as per claim 20, Westerlage et al. disclose a train position encoder on-board designated train, train position encoder communicating GPS position information to second voice communication device for communication thereby to train position decoder via first voice communication device (see column 11, line 31 to column 12, line 26), and GPS receiver on-board designated train receiving GPS position information and communicating GPS position information to train position encoder (see column 16, lines 3-19; and column 16, line 46 to column 17, line 23).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

. Gough (3,678,391)

. Polivka et al. (5,828,979)

. Fumarolo et al. (6,366,782)

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 703-308-8223. The examiner can normally be reached on M-F (7:30 AM-5:30 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 703-305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/dt
November 15, 2004

TAN Q. NGUYEN
PRIMARY EXAMINER